FIG. 1

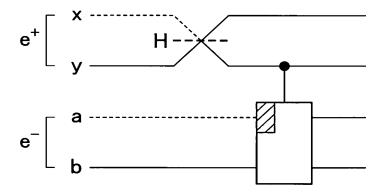


FIG. 2

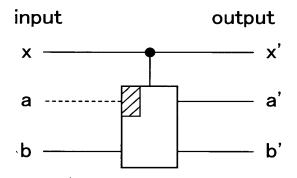


FIG. 3

input	output
$ 0\rangle_{x} 0\rangle_{a} 1\rangle_{b}$	0> _{x'} 1> _{a'} 0> _{b'}
$ 1\rangle_{x} 0\rangle_{a} 1\rangle_{b}$	$ 1>_{x'} 0>_{a'} 1>_{b'}$

FIG. 4

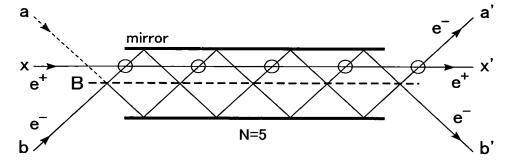


FIG. 5

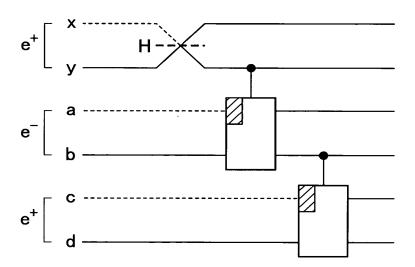


FIG. 6

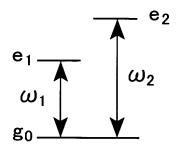


FIG. 7

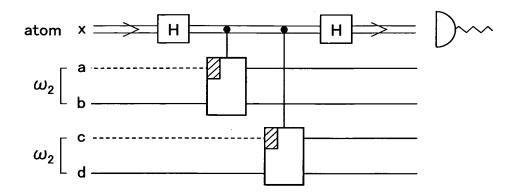


FIG. 8

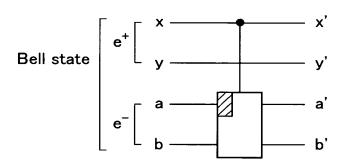


FIG. 9

input	output
$ 0\rangle_{x} 0\rangle_{a} 1\rangle_{b}$	0> _{x'} 1> _{a'} 0> _{b'}
$ 1\rangle_{x} 0\rangle_{a} 1\rangle_{b}$	1> _{x'} 0> _{a'} 1> _{b'}
$ 0\rangle_{x} 1\rangle_{a} 0\rangle_{b}$	- 0> _x , 0> _a , 1> _b ,
$ 1\rangle_{x} 0\rangle_{a} 0\rangle_{b}$	11> _x , 10> _a , 10> _b ,
$ 1\rangle_{x} 1\rangle_{a} 0\rangle_{b}$	$ \gamma\rangle_{x'a'} 0\rangle_{b'}$

FIG. 10

	input	output
Φ	$ 0\rangle_{x} 1\rangle_{y} 0\rangle_{a} 1\rangle_{b}$	$ 0>_{x'} 1>_{y'} 1>_{a'} 0>_{b'}$
Ψ[$ 1\rangle_{x} 0\rangle_{y} 1\rangle_{a} 0\rangle_{b}$	$ \gamma\rangle_{x'a'} 0\rangle_{y'} 0\rangle_{b'}$
Ψ.[$ 0\rangle_{x} 1\rangle_{y} 1\rangle_{a} 0\rangle_{b}$	$- 0>_{x'} 1>_{y'} 0>_{a'} 1>_{b'}$
Τ.[$ 1>_{x} 0>_{y} 0>_{a} 1>_{b}$	$ 1>_{x'} 0>_{y'} 0>_{a'} 1>_{b'}$

FIG. 11

		Ф	Φ_	Ψ⁺	Ψ-
1	I×I	Ф+	Φ¯	Ψ	Ψ-
2	A	Ψ-	Ψ⁺	Ф	Ф⁺
3	В	Ф⁺	Ψ⁺	Φ_	Ψ-
4	C	Ψ+	Φ¯	Ф	Ψ-
5	ВА	Ψ¯	Φ¯	Ψ⁺	Ф⁺
6	CA	Ψ¯	Ф⁺	Φ¯	Ψ+

A=R_y(
$$\pi$$
)×I
B=R_y(π /2)×R_y(π /2)
C=R_x(π /2)×R_x(π /2).

FIG. 12

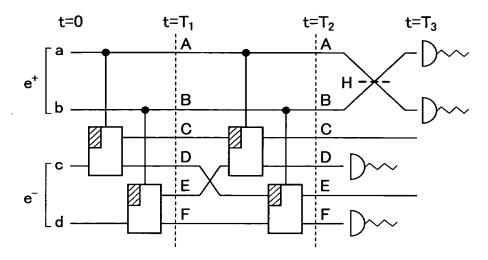


FIG. 13

t=0	t=T ₁	t=T ₂
0> _a 1> _b 0> _c 1> _d	$ 0>_A 1>_B 0>_C 0>_D 0>_E 1>_F$	$ 0>_A 1>_B 0>_C 0>_E 0>_D 1>_F$
$ 0>_{a} 1>_{b} 1>_{c} 0>_{d}$	$ 0>_A 1>_B 1>_C 0>_D 0>_E 0>_F$	$- 0>_{A} 1>_{B} 0>_{C} 1>_{E} 0>_{D} 0>_{F}$
$ 1>_{a} 0>_{b} 0>_{c} 1>_{d}$	$ 1>_A 0>_B 0>_C 0>_D 1>_E 0>_F$	$ 1>_A 0>_B 0>_C 1>_E 0>_D 0>_F$
$ 1>_{a} 0>_{b} 1>_{c} 0>_{d}$	$ 1>_A 0>_B 0>_C 1>_D 0>_E 0>_F$	$- 1>_A 0>_B 0>_C 0>_E 0>_D 1>_F$

FIG. 14

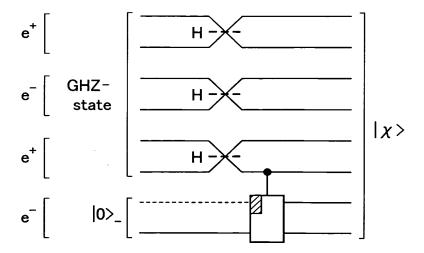


FIG. 15

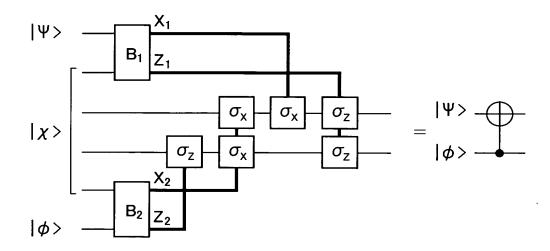


FIG. 16

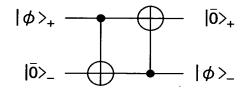


FIG. 17

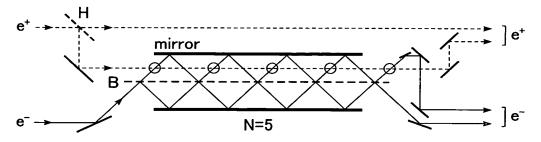


FIG. 18

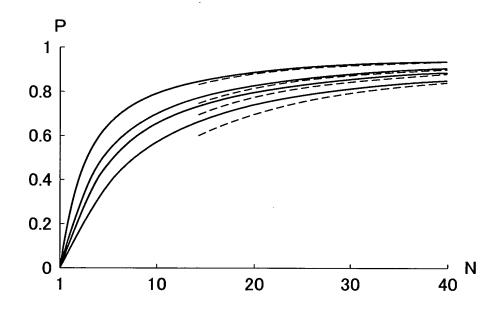


FIG. 19

log N + Const.

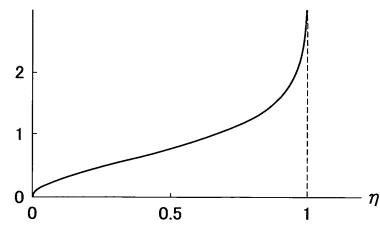
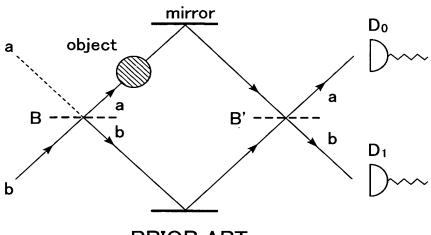


FIG. 20



PRIOR ART

FIG. 21

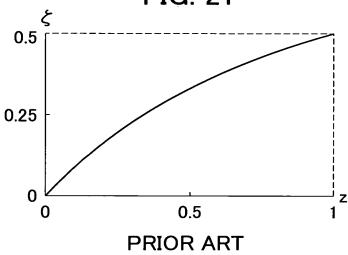
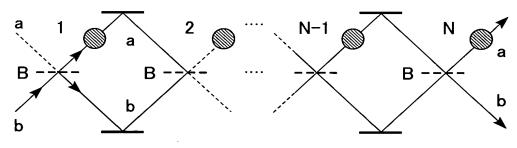


FIG. 22



PRIOR ART